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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/117,401	04/03/2002	Andrew J. Black	HARD1.060A	6379
20495 7590 08/25/2004 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER MIGGINS, MICHAEL C	
			ART UNIT 1772	PAPER NUMBER

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/117,401	Applicant(s) BLACK ET AL	
	Examiner Michael C. Miggins	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 36-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration. \
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 36-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06142004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Rejections Withdrawn

1. All of the 35 USC 112, 2nd paragraph, 35 USC 102 and 103 rejections set forth in the non-final office action of 11/3/2003, pages 3-27, paragraphs 8-32 have been withdrawn.

Rejections Repeated

2. There are no rejections repeated.

Response to Arguments

3. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

New Rejections

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 43 and 60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claims 1 and 43, the original disclosure does not describe the fiber cement article having localized areas of weakness nor does the original disclosure describe reinforcing the localized areas of weakness.

With regard to claim 60, the original disclosure does not describe the fiber cement article wherein the surface area of the at least one localized region covers at least 8% of the surface area.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 12-15, 17-18, 21, 50-51, 53-55, 60 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by Bado et al. (WO 98/10151).

Bado et al. teach a reinforced fiber cement article, comprising a fiber cement article (page 5, line 20) having a front surface and a back surface, wherein the front surface and the back surface each have a surface area (100 from Fig. 5), and a reinforcing fixture (130 from Fig. 5) having a surface bonded to a localized region on at least one the front surface and the back surface to reinforce at least one area of weakness on the fiber cement article and to improve the strength of the fiber cement

article (since the supporting members are at both ends and in the middle, page 9, lines 4-23 and Fig. 5), wherein the localized region contains one area of weakness on the fiber cement article, wherein the surface of the reinforcing fixture has an area that is less than the surface area of the at least one of the front surface and the back surface to which the reinforcing fixture is bonded via an adhesive (gluing) (page 9, lines 4-23 and Fig. 5) (applies to instant claims 1, 50 and 64).

Bado et al. teach a reinforced fiber cement article, wherein the reinforcing fixture has a thickness, width and length (130 from Fig. 5), wherein the length of the reinforcing fixture is substantially the same as the length of the fiber cement article (100 and 130 from Fig. 5), wherein the reinforcing fixture is an interlocking member (since 130 from Fig. 5 interlocks 170 from Fig. 5), wherein the interlocking member is a butt piece (since 130 from Fig. 5 interlocks 170 from Fig. 5 in a butting relationship), wherein the reinforcing fixture is a nailing skirt for attaching and supporting the fiber cement article to the exterior of a building (since 180 from Fig. 6 is part of support member 130 from Fig. 6) wherein the fiber cement article has a length extending from one end to another end of the article and the reinforcing fixture extends along the entire length of the article (130 from Fig. 5), wherein the at least one reinforcing fixture is bonded the at least one localized region by an adhesive (page 9, lines 4-23), wherein the at least one reinforcing fixture is made of a material that is different from the fiber cement article (page 9, lines 4-23), wherein the at least one reinforcing fixture is made of metal or polymer (since aluminum and plastic are taught, page 9, lines 4-23), and wherein the surface area of the at least one localized region covers at least 8% of the surface area of the at least

one of the front surface and the back surface of the fiber cement article to which the surface fixture is bonded (since 130 from Fig. 5 clearly covers more than 8%) and wherein the fiber cement article is a flat siding plank (page 1, lines 1-12) (applies to instant claims 12-15, 17-18, 21, 51, 53-55 and 60).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151).

Bado et al. teach wherein the interlocking member is a spline (page 10, line 7).

Bado et al. do not teach that the spline is made of plastic. However, it would have been obvious to one of ordinary skill in the art to construct a plastic spline in order to lower the weight of the panel (applies to instant claim 16). Furthermore, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (applies to instant claim 16). *In re Leshin*, 125 USPQ 416.

10. Claims 2-6, 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Wesch et al. (U.S. Patent No. 4,292,364).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose a reinforced fiber cement article further comprising a high-shear strength adhesive layer situated between the fiber cement article and the reinforcing fixture, wherein the high-shear strength adhesive layer covers a portion of the front surface, or front and back, of the fiber cement article, wherein the reinforcing fixture has a tensile strength greater than the fiber cement article, wherein the reinforcing fixture is more flexible than the fiber cement article, wherein the reinforcing fixture is a polymer film, wherein the fiber cement article has a hollow extruded profile.

Wesch et al. teach a reinforced fiber cement article further comprising a high-shear strength adhesive layer situated between the fiber cement article and the reinforcing fixture (since intermediate layers 12 and 14 from Fig. 1 reduces shearing forces, see column 3, lines 16-36), wherein the high-shear strength adhesive layer covers a portion of the front surface, or front and back, of the fiber cement article (12 and 14 from Fig. 1), wherein the reinforcing fixture has a tensile strength greater than the fiber cement article (since the reinforcing fixture, cover layers, absorb a maxima of tensile forces, column 2, lines 24-40), wherein the reinforcing fixture is more flexible than the fiber cement article (since the reinforcing fixture can be a polymer film or sheet, column 3, lines 1-12), wherein the reinforcing fixture is a polymer film (column 3, lines 1-12), wherein the fiber cement article has a hollow extruded profile (Figs. 4 and 8,

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column 4, lines 9-13) (applies to instant claims 2-6, 9, and 20) for the purpose of providing a load bearing board with superior mechanical properties.

The references are analogous since both are drawn to reinforced fiber cement articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a high-shear strength adhesive layer situated between the fiber cement article and the reinforcing fixture, wherein the high-shear strength adhesive layer covers a portion of the front surface, or front and back, of the fiber cement article, wherein the reinforcing fixture has a tensile strength greater than the fiber cement article, wherein the reinforcing fixture is a polymer film, wherein the fiber cement article has a hollow extruded profile in the reinforced cement article of Bado et al. in order to provide a load bearing board with superior mechanical properties as taught or suggested by Wesch.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Lehan (U.S. Patent No. 6,316,087 B1).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose that the reinforcing fixture is a metal foil.

Lehan teaches a reinforcing fixture which is a metal foil (column 5, lines 16-28 and column 6, lines 46-52) in a cementitious panel for the purpose of providing thermal, fire or water resistance.

The references are analogous because both are drawn to reinforced fiber cement articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a reinforcing fixture which is a metal foil in the reinforced fiber cement article of Bado et al. in order to provide thermal, fire or water resistance as taught or suggested by Lehan.

12. Claims 36-37, 58-59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Tamlyn (U.S. Patent No. 5,916,095).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch and wherein the fiber cement article is bonded to only one reinforcing fixture.

Tamlyn teaches wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch (column 2, lines 26-55) and wherein the fiber cement article is bonded to only one reinforcing fixture (since 34 from Fig. 1 is only bonded to one plank) in a fiber cement article (column 2, lines 26-55) for the purpose of providing ease of construction and lower construction costs (column 2, lines 1-14) (applies to instant claims 36-37, 58-59 and 61).

The references are analogous because both are drawn to reinforced fiber cement articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch and wherein the fiber cement article is bonded to only one reinforcing fixture in the reinforced fiber cement article of Bado et al. in order to provide for ease of construction and lower construction costs as taught or suggested by Tamlyn.

13. Claims 8, 10-11, 40-41, 56-57, 62 and 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Mathieu (U.S. Patent No. 6,488,792 B2).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose that the reinforcing fixture is a woven metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven.

Mathieu teaches a reinforcing fixture which is a woven metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven (column 13, line 53 through column 14, line 46, column 15, lines 19-40) (applies to instant claims 8, 10-11, 40-41, 56-57, 62 and 65-66) in a cementitious panel for the purpose of providing a reinforced panel of high strength which is readily penetrable by nails or screws and other fasteners without breaking.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a reinforcing fixture which is a woven

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metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven in the reinforced fiber cement article of Bado et al. in order to provide a reinforced panel of high strength which is readily penetrable by nails or screws and other fasteners without breaking as taught or suggested by Mathieu.

14. Claims 19, 42, 63 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Jakel (U.S. Patent No. 5,323,581).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose wherein the fiber cement article is a roofing shake, wherein the fiber cement article is selected from the group consisting of a roofing slate or tile.

Jakel teach wherein the fiber cement article is a roofing shake, wherein the fiber cement article is selected from the group consisting of a roofing slate or tile (column 1, lines 33-60 and column 4, lines 11-27) in a reinforced fiber cement article (column 4, lines 11-27 and 63 from Fig. 2, column 2, lines 24-38) for the purpose of providing light weight roofing with improved wind up-lift resistance (column 1, lines 33-60) (applies to instant claims 19, 42, 63 and 67).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the fiber cement article is a roofing shake, wherein the fiber cement article is selected from the group consisting of a roofing slate or tile in the reinforced fiber cement article of Bado et al. in order to provide

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light weight roofing with improved wind up-lift resistance as taught or suggested by Jakel.

15. Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Jakel (U.S. Patent No. 5,323,581), as applied to claims 19, 42, 63 and 67 above, and further in view of Mathieu (U.S. Patent No. 6,488,792 B2).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose that the reinforcing fixture is a woven metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven.

Mathieu teaches a reinforcing fixture which is a woven metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven (column 13, line 53 through column 14, line 46, column 15, lines 19-40) (applies to instant claims 38-39) in a cementitious panel for the purpose of providing a reinforced panel of high strength which is readily penetrable by nails or screws and other fasteners without breaking.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided a reinforcing fixture which is a woven metal mesh, wherein the reinforcing fixture is polymer fabric mesh and wherein the polymer fabric mesh is non-woven in the reinforced fiber cement article of Bado et al. in

order to provide a reinforced panel of high strength which is readily penetrable by nails or screws and other fasteners without breaking as taught or suggested by Mathieu.

16. Claims 43, 45-46 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Tamlyn (U.S. Patent No. 5,916,095).

Bado et al. teach a reinforced fiber cement article, comprising a fiber cement article (page 5, line 20) having a front surface and a back surface, wherein the front surface and the back surface each have a surface area (100 from Fig. 5), and a reinforcing fixture (130 from Fig. 5) having a surface bonded to a localized region on at least one the front surface and the back surface to reinforce at least one area of weakness on the fiber cement article and to improve the strength of the fiber cement article (since the supporting members are at both ends and in the middle, page 9, lines 4-23 and Fig. 5), wherein the localized region contains one area of weakness on the fiber cement article, wherein the surface of the reinforcing fixture has an area that is less than the surface area of the at least one of the front surface and the back surface to which the reinforcing fixture is bonded via an adhesive (gluing) (page 9, lines 4-23 and Fig. 5) (applies to instant claim 43).

Bado et al. teach a reinforced fiber cement article, wherein the fiber cement article has a length extending from one end to another end of the article and the reinforcing fixture extends along the entire length of the article (130 from Fig. 5) and

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wherein the fiber cement article is a flat siding plank or panel (page 1, lines 1-12)
(applies to instant claims 45-48).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch and wherein the fiber cement article is bonded to only one reinforcing fixture.

Tamlyn teaches wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch (column 2, lines 26-55) and wherein the fiber cement article is bonded to only one reinforcing fixture (since 34 from Fig. 1 is only bonded to one plank) in a fiber cement article (column 2, lines 26-55) for the purpose of providing ease of construction and lower construction costs (column 2, lines 1-14) (applies to instant claim 43).

The references are analogous because both are drawn to reinforced fiber cement articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the fiber cement article has a thickness of about $5/16$ of an inch or less, or is at least $3/16$ of an inch and wherein the fiber cement article is bonded to only one reinforcing fixture in the reinforced fiber cement article of Bado et al. in order to provide for ease of construction and lower construction costs as taught or suggested by Tamlyn.

17. Claims 44 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bado et al. (WO 98/10151) in view of Tamlyn (U.S. Patent No. 5,916,095), as applied to claims 43, 45-46 and 47-48 above, and further in view of Wesch et al. (U.S. Patent No. 4,292,364).

Bado et al. disclose applicant's invention substantially as claimed. However, Bado et al. fail to disclose wherein the reinforcing fixture has a tensile strength greater than the fiber cement article and wherein the fiber cement article has a hollow extruded profile.

Wesch et al. teach a reinforced fiber cement article wherein the reinforcing fixture has a tensile strength greater than the fiber cement article (since the reinforcing fixture, cover layers, absorb a maxima of tensile forces, column 2, lines 24-40) and wherein the fiber cement article has a hollow extruded profile (Figs. 4 and 8, column 4, lines 9-13) (applies to instant claims 44 and 49) for the purpose of providing a load bearing board with superior mechanical properties.

The references are analogous since both are drawn to reinforced fiber cement articles.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have wherein the reinforcing fixture has a tensile strength greater than the fiber cement article and wherein the fiber cement article has a hollow extruded profile in the reinforced cement article of Bado et al. in order to provide a load bearing board with superior mechanical properties as taught or suggested by Wesch.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (571) 272-1494. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Miggins
Examiner
Art Unit 1772



MCM
August 13, 2004

Notice of References Cited	Application/Control No. 10/117,401	Applicant(s)/Patent Under Reexamination BLACK ET AL	
	Examiner Michael C. Miggins	Art Unit 1772	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,916,095	06-1999	Tamlyn, John Thomas	52/58
	B	US-5,323,581	06-1994	Jakel, Karl W.	52/519
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	WO 98/10151	03-1998	WO	Bado et al.	E04B 1/61
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.